

SCI Crawlspace Emergent Structural Repairs 100 Emancipation Dr. Hampton, VA 23667



Hampton, Virginia

137-EP100	PIPE BASEMENT PLAN REMOVALS AND NEW WORK - ELECTRIC

REVIEWED: AFGE	DATE:
REVIEWED: NAGE	DATE:
REVIEWED: PARALYZED VETERANS OF AMERICA	DATE:
ILSM/ICRA	DATE:
APPROVED: INTERIOR DESIGNER	DATE:
APPROVED: SAFETY MANAGER	DATE:
APPROVED: GEMS COORDINATOR	DATE:
APPROVED: PROGRAM MANAGER EMS	DATE:
APPROVED: PROGRAM MANAGER M+R	DATE:
APPROVED: PROJECT ENGINEER	DATE:
APPROVED: ENERGY ENGINEER	DATE:
APPROVED: DIRECTOR OF ENGINEERING SERVICES	DATE:
APPROVED: CHIEF, FACILITIES MANAGEMENT SERVICE	DATE:
APPROVED: INFECTION CONTROL	DATE:
APPROVED: CHIEF, POLICE SERVICE	DATE:
APPROVED: CHIEF, INFORMATION RESOURCES MANAGEMENT SERVICE	DATE:
APPROVED: CHIEF NUTRITION AND FOOD SERVICE	DATE:
APPROVED: CHIEF, LOGISTICS SERVICE	DATE:
APPROVED: CHIEF, PHARMACY SERVICE	DATE:
APPROVED: ASSOCIATE CHIEF, NURSE SCI	DATE:
APPROVED: CHIEF, SPINAL CORD INJURY AND DISORDERS SERVICE LINE	DATE:
APPROVED: FACILITY PLANNER	DATE:
APPROVED: ASSOCIATE DIRECTOR	DATE:
APPROVED: CHIEF NURSE EXECUTIVE	DATE:
APPROVED: CHIEF OF STAFF	DATE:

APPROVED: DIRECTOR, HAMPTON VA MEDICAL CENTER

80



CONSULTANTS:

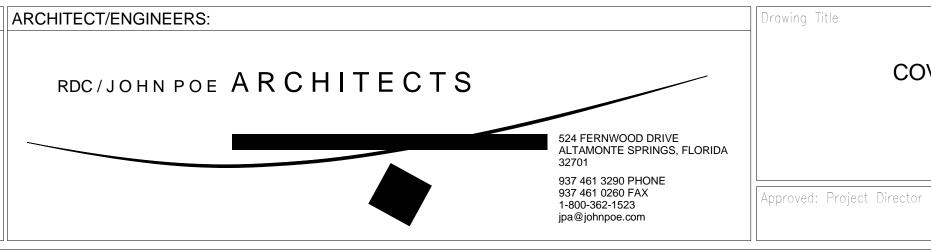
JOHN A. POE

Lic. No. 015768

THP LIMITED INC. STRUCTURAL ENGINEER 100 E. EIGHTH STREET CINCINNATI, OH 45202 513.241.3222 P 513.241.2981 F

HEAPY ENGINEERING MECHANICAL ELECTRICAL COMMISSIONING TECHNOLOGY 1400 WEST DOROTHY LANE DAYTON, OH 45409 937.224.0861 P 937.224.5777 F

TERRACON INC. 5240 GREEN'S DAIRY ROAD RALEIGH, NC 27616 919.873.2211 P 919.873.9555 F



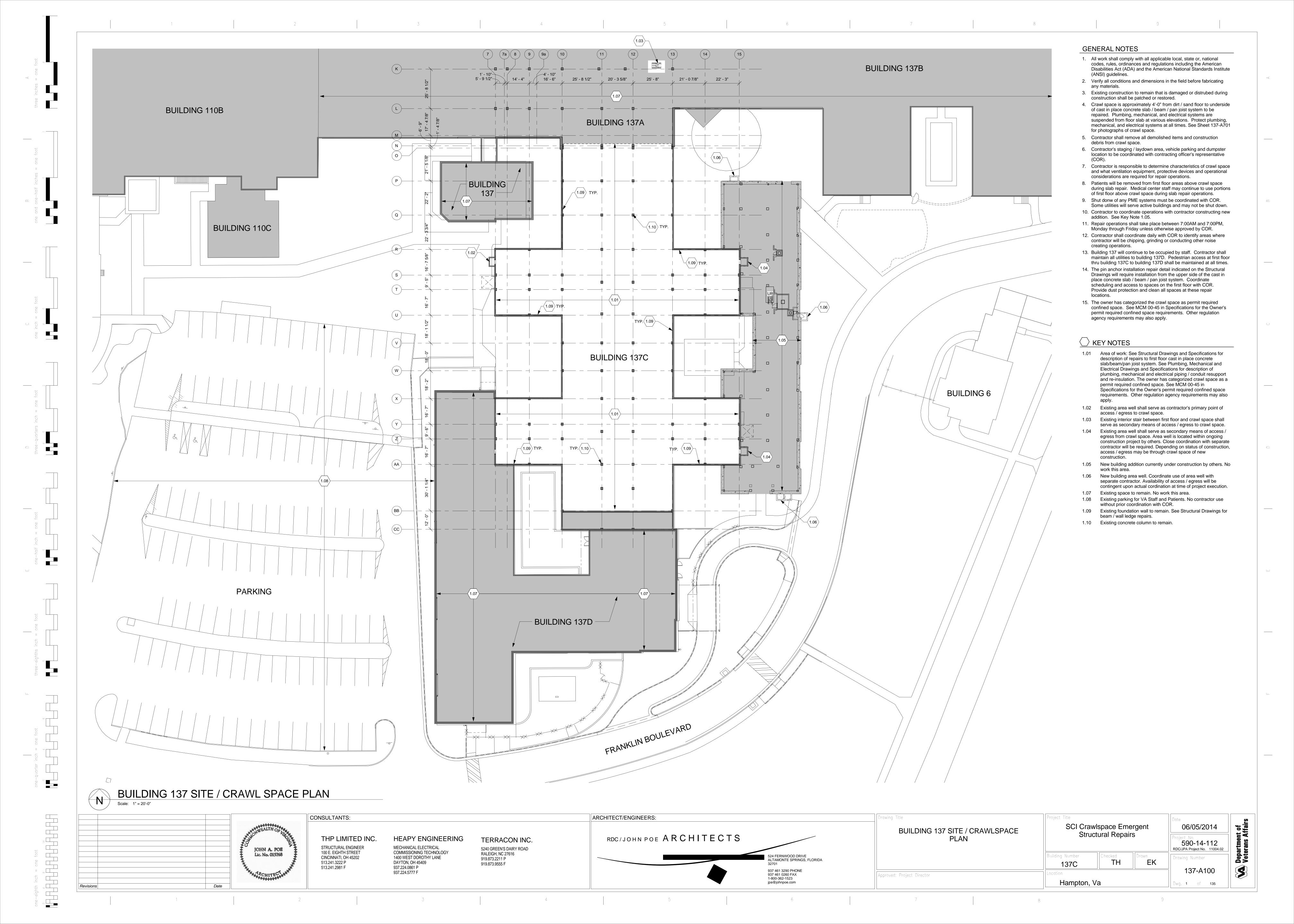
SCI Crawlspace Emergent **COVER SHEET** 

06/05/2014 Structural Repairs 590-14-112

RDC/JPA Project No. 11004.02 EK 137C

137-G001

Hampton, Va





Cast in place concrete column, beam and pan joist floor system



Damaged beam and joist to be repaired.



Damaged joists to be repaired.



**GENERAL NOTES** 

A Photographs are provided to illustrate general conditions found in crawl space.

D The owner has categorized the crawl space as a permit required confined space. See MCM 00-45 in Specifications for the Owner's permit required confined space requirements. Other regulation agency requirements may also apply.

B Photographs do not depict appropriate support of Fire Protection, Plumbing, Mechanical and/or Electrical systems.

C Photographs were taken in 2011. Actual conditions may not be identical to photographs.

Damaged beam to be repaired.





5 Damaged joist to be repaired.



6 Damaged joist to be repaired.



Damaged joists to be repaired.



8 Damaged joists to be repaired.



9 View of crawl space and piping.

one-eighth inch = one foot



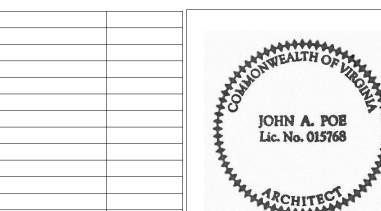
View of crawl space.



Typical crawl space area well access -Exterior



Typical crawl space area well access - Interior

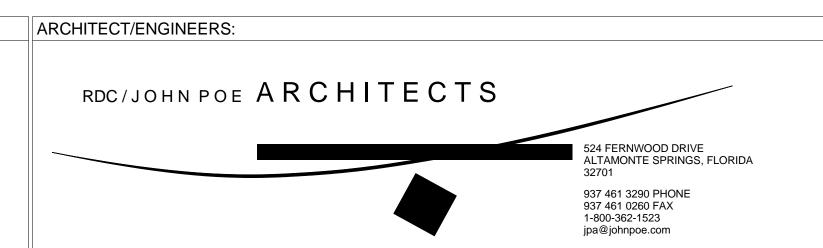


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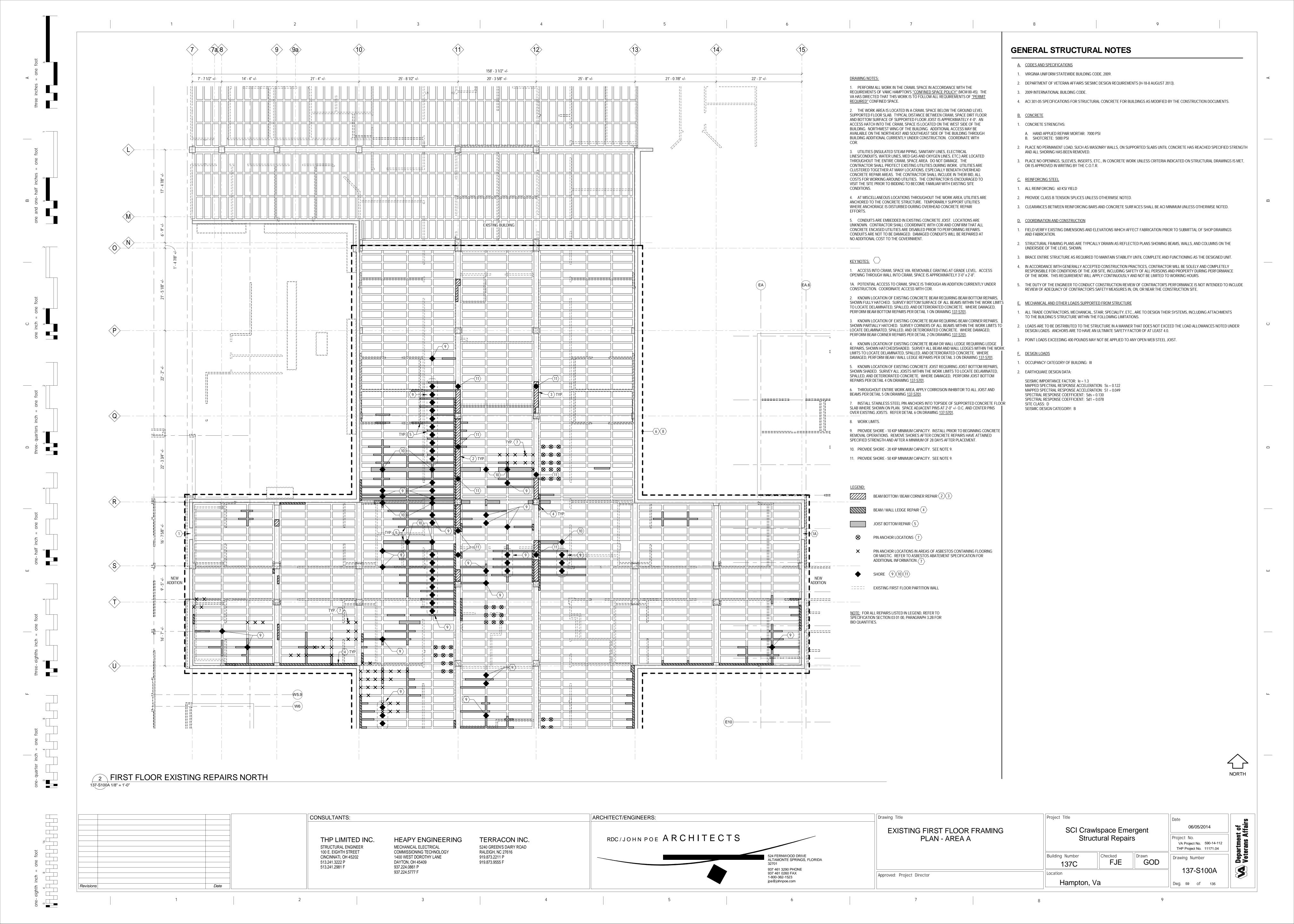


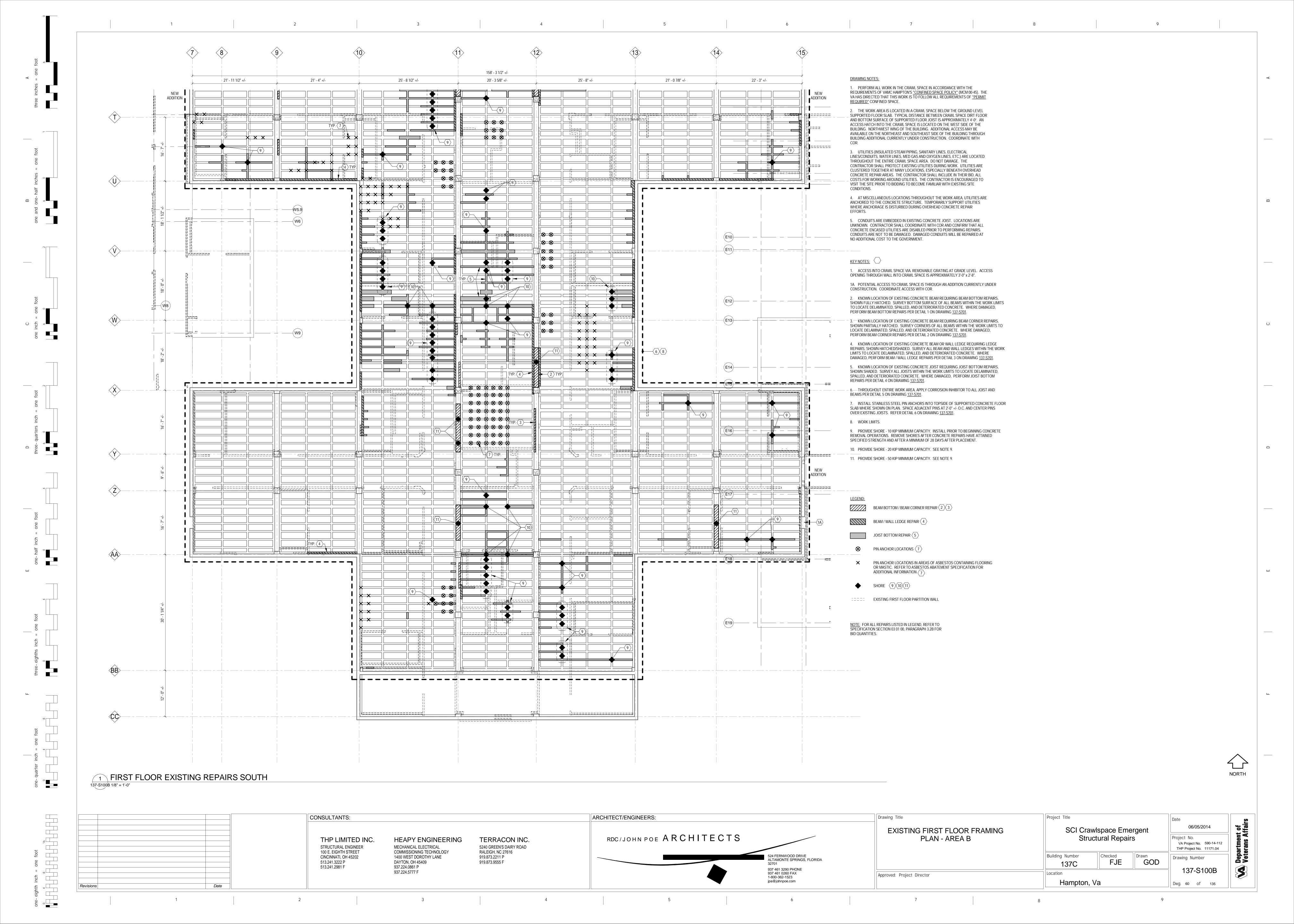
PHOTOGRAPHS OF CRAWLSPACE	
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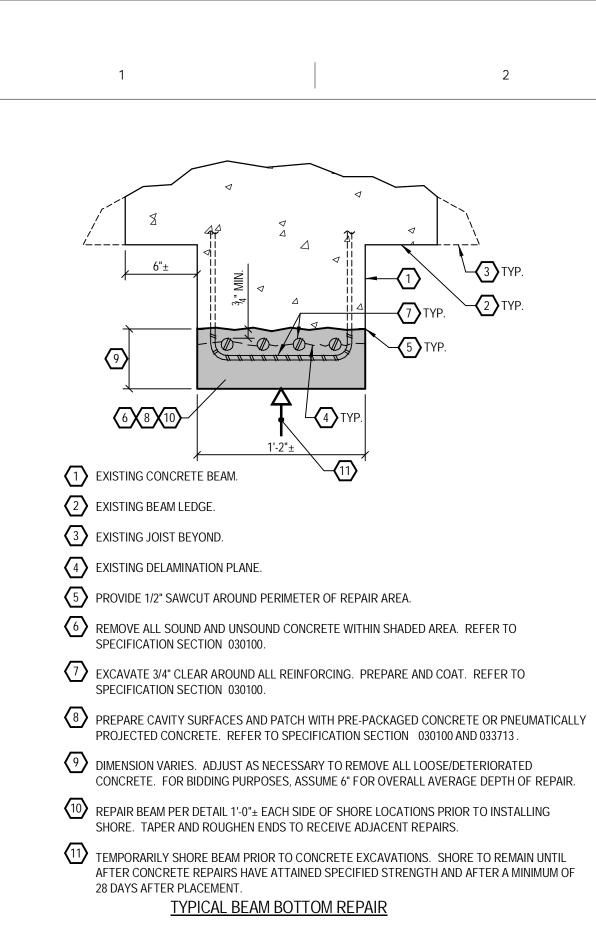
Drawing Title

Approved: Project Director

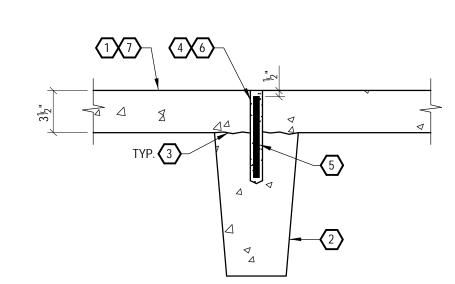
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Structural Repairs	5	Project No. 590-14-112  RDC/JPA Project No. 11004.02	artment erans A
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Hampton, Va		Dwg. 2 of 135	







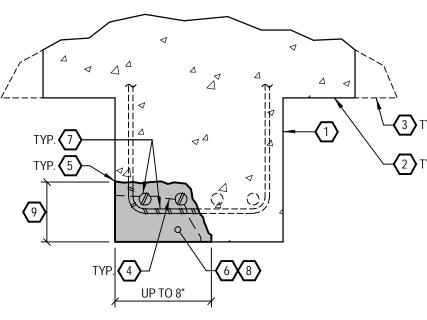
1 DETAIL 137-S701 1 1/2" = 1'-0"



- 1 EXISTING CONCRETE SLAB.
- 2 EXISTING CONCRETE JOIST.
- 3 EXISTING CRACK IN CONCRETE.
- DRILL 3/4" DIA. x 6 1/2" DEEP HOLE TO RECEIVE PIN ANCHOR. BLOW HOLE CLEAN WITH OIL-FREE COMPRESSED AIR, BRUSH WITH WIRE BRUSH (3) TIMES MINIMUM, AND RE-BLOW HOLE TO PROVIDE DUST FREE SURFACE.
- 5 1/2" DIA. x 6" LONG STAINLESS STEEL THREADED ROD. REFER TO SPECIFICATION
- 6 SET IN EPOXY GROUT. REFER TO SPECIFICATION SECTION 030100.
- 7) TOP OF FLOOR SLAB TO RECEIVE NEW FLOOR FINISHES/REPAIRS TO EXISTING FINISHES. PERFORM ALL PIN INSTALLATIONS PRIOR TO FLOOR FINISH REPAIR OPERATIONS.

PIN ANCHOR INSTALLATION

6 DETAIL 137-S701 1 1/2" = 1'-0"

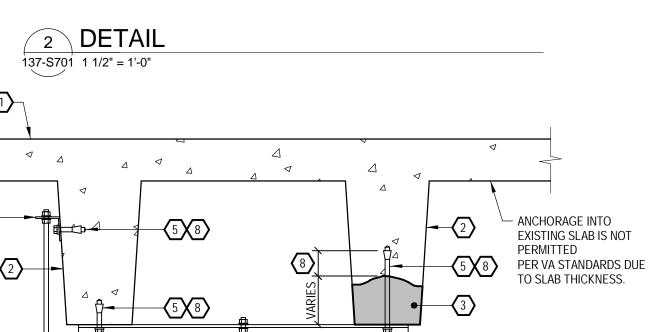


- 1 EXISTING CONCRETE BEAM.
- 2 EXISTING BEAM LEDGE.
- 3 EXISTING JOIST BEYOND.
- 4 EXISTING DELAMINATION PLANE.
- PROVIDE 1/2" SAWCUT AROUND PERIMETER OF REPAIR AREA.
- REMOVE ALL SOUND AND UNSOUND CONCRETE WITHIN SHADED AREA. REFER TO SPECIFICATION SECTION 030100.
- EXCAVATE 3/4" CLEAR AROUND ALL REINFORCING. PREPARE AND COAT. REFER TO SPECIFICATION SECTION 030100.
- PREPARE CAVITY SURFACES AND PATCH WITH PRE-PACKAGED CONCRETE OR PNEUMATICALLY PROJECTED CONCRETE. REFER TO SPECIFICATION SECTION 030100 AND 033713.
- (9) DIMENSION VARIES. ADJUST AS NECESSARY TO REMOVE ALL LOOSE/DETERIORATED CONCRETE. FOR BIDDING PURPOSES, ASSUME 6" FOR OVERALL AVERAGE DEPTH OF REPAIR. TYPICAL BEAM CORNER REPAIR

NOTE: INDIVIDUAL ANCHOR LOADS

ARE LIMITED TO 500# IN ORIGINAL UNREPAIRED AREAS AND 300# IN

CONCRETE REPAIR AREAS.



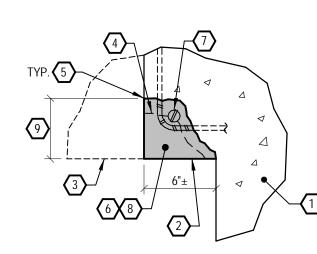
- 1 EXISTING CONCRETE SLAB.
- 2 EXISTING CONCRETE JOIST.
- JOIST BOTTOM REPAIR PER DETAIL 4 ON 137-S701.
- 4 3/8" MIN DIA HANGER ROD.
- (5) 3/8" MIN DIA EXPANSION ANCHOR.
- 6 CLIP ANGLE.
- 7 L1 1/2x1 1/2x1/4 FOR PIPES UNDER 2" DIA. L3x3x1/4 FOR PIPES 2" DIA AND LARGER.

8 EMBEDMENT INTO EXISTING CONCRETE PER MANUFACTURER'S RECOMMENDATIONS.

SECURING HANGER RODS IN CONCRETE

7 DETAIL

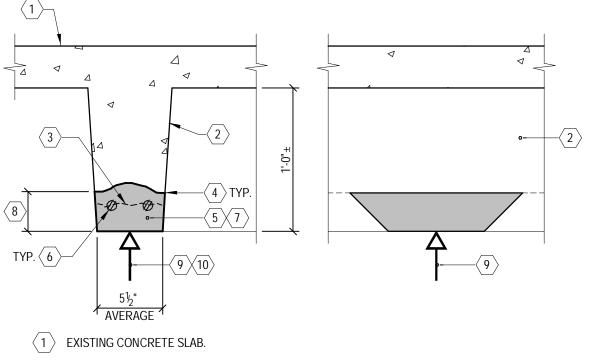
137-S701 1 1/2" = 1'-0"



- 1 EXISTING CONCRETE BEAM OR WALL.
- (2) EXISTING LEDGE.
- 3 EXISTING JOIST BEYOND.
- 4 EXISTING DELAMINATION PLANE.
- PROVIDE 1/2" SAWCUT AROUND PERIMETER OF REPAIR AREA.
- REMOVE ALL SOUND AND UNSOUND CONCRETE WITHIN SHADED AREA. REFER TO SPECIFICATION SECTION 030100.
- EXCAVATE 3/4" CLEAR AROUND ALL REINFORCING. PREPARE AND COAT. REFER TO SPECIFICATION SECTION 030100.
- PREPARE CAVITY SURFACES AND PATCH WITH PRE-PACKAGED CONCRETE OR PNEUMATICALLY PROJECTED CONCRETE. REFER TO SPECIFICATION SECTION 030100 AND 033713.
- 9 DIMENSION VARIES. ADJUST AS NECESSARY TO REMOVE ALL LOOSE/DETERIORATED CONCRETE. FOR BIDDING PURPOSES, ASSUME 6" FOR OVERALL AVERAGE DEPTH OF REPAIR.

TYPICAL BEAM/WALL LEDGE REPAIR

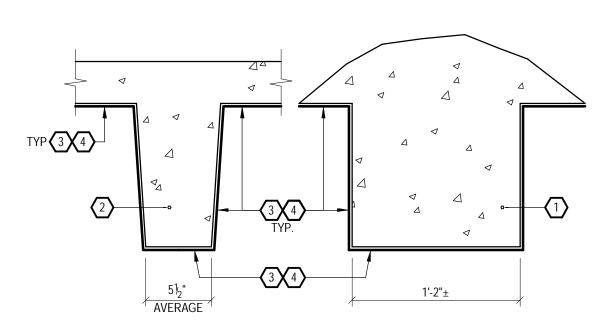
3 DETAIL 137-S701 1 1/2" = 1'-0"



- $\langle$  2  $\rangle$  Existing concrete joist or Bridging Rib.
- $\langle 3 \rangle$  EXISTING DELAMINATION PLANE.
- $\langle$  4  $\rangle$  1/2" SAWCUT AROUND PERIMETER OF REPAIR AREA.
- $\langle 5 
  angle$  remove all sound and unsound concrete in Shaded area. Refer to specification
- $\langle$  6  $\rangle$  Excavate 3/4" around all reinforcing. Prepare and coat exposed steel. Refer to SPECIFICATION SECTION 030100.
- ⟨ 7 ⟩ PREPARE CAVITY SURFACES AND PATCH WITH PRE-PACKAGED CONCRETE OR PNEUMATICALLY PROJECTED CONCRETE. REFER TO SPECIFICATION SECTION 030100 AND 033713.
- $\langle 8 \rangle$  dimension varies. Adjust as necessary to remove all loose/deteriorated concrete. FOR BIDDING PURPOSES, ASSUME 6" FOR OVERALL AVERAGE DEPTH OF REPAIR.
- (9) TEMPORARILY SHORE JOIST BRIDGING RIB WHERE INDICATED ON PLAN PRIOR TO BEGINNING EXCAVATIONS. SHORE TO REMAIN UNTIL AFTER CONCRETE REPAIRS HAVE ATTAINED SPECIFIED STRENGTH AND AFTER A MINIMUM OF 28 DAYS AFTER PLACEMENT.
- $\langle 10 \rangle$  Repair joist per detail 1'-0" ± Each side of shore locations prior to installing shore. TAPER AND ROUGHEN ENDS TO RECEIVE ADJACENT REPAIRS.

TYPICAL JOIST BOTTOM REPAIR

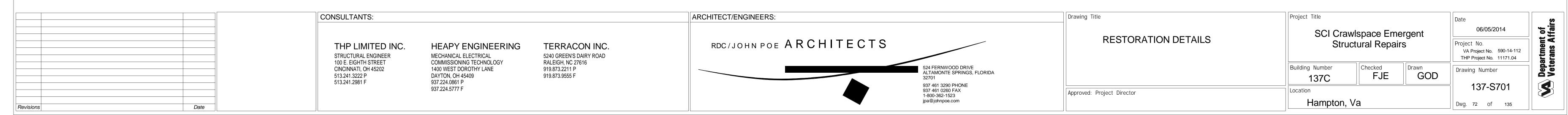
4 DETAIL 137-S701 1 1/2" = 1'-0"

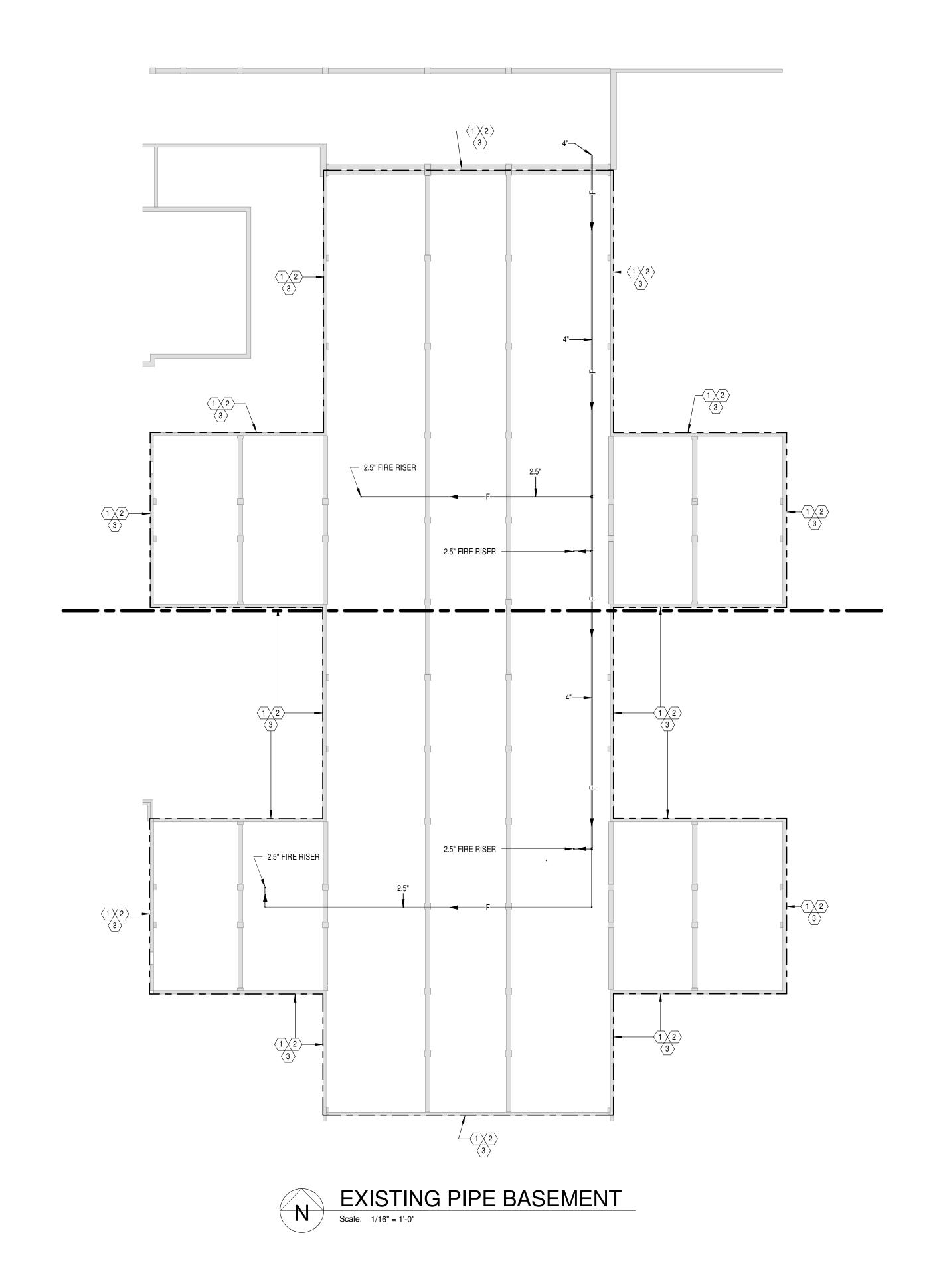


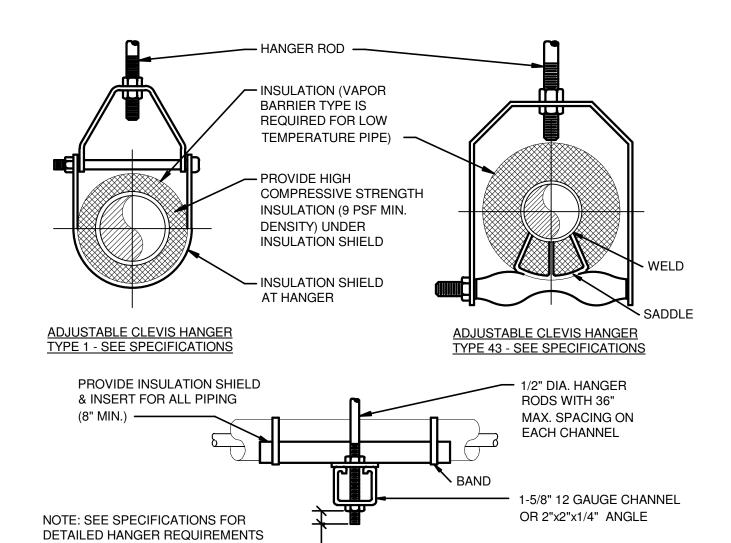
- 1 EXISTING CONCRETE BEAM.
- 2 EXISTING CONCRETE JOIST.
- 3 APPLY CORROSION INHIBITOR TO ALL CONCRETE SURFACES. REFER TO SPECIFICATION SECTION 071950.
- PRIOR TO APPLICATION OF CORROSION INHIBITOR, PREPARE CONCRETE SURFACES. REFER TO SPECIFICATION SECTION 071950.

JOIST AND BEAM CORROSION INHIBITOR APPLICATION

5 DETAIL 137-S701 1 1/2" = 1'-0"







#### SIDE VIEW TRAPEZE HANGER FOR UP TO 1000 LB. UNIFORM LOAD

		N	MAXIMU	JM PIPE	E/TUBIN	IG SUP	PORT S	SPACIN	G				
NOM. SIZE	IN.	THRU 3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10
PIPE	FT.	7	7	7	9	10	11	12	14	16	17	19	22
TUBING	FT.	5 FT	6	7	8	8	9	10	12	13	14	16	-
NOTE: F	OR TR	APEZE HANGI	ER TAK	E SPAC	CING OF	SMAL	LEST S	IZE ON	TRAPE	ZE.			

# PIPE HANGERS

### **GENERAL NOTES:**

- A ALL PIPING IS SUPPORTED FROM THE UNDERSIDE OF STRUCTURE IN EXPOSED STRUCTURE AREAS.
- B EXISTING CONDITIONS SHOWN HAVE BEEN BASED UPON VISUAL OBSERVATION AND/ OR AVAILABLE DRAWING INFORMATION, AND MAY BE AT VARIANCE WITH ACTUAL WORK IN PLACE. THE CONTRACTOR SHALL TAKE ALL NECESSARY FIELD MEASUREMENTS AND FIELD VERIFY ALL CONDITIONS AFFECTING THE EXECUTION OF THE WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE WORK SHOWN ON THE CONTRACT DOCUMENTS WHICH MAY IMPACT THE PROGRESS OF THE WORK SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER IN WRITING FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
- C CONTRACTOR IS RESPONSIBLE TO DETERMINE CHARACTERISTICS OF CRAWLSPACE AND WHAT VENTILATION, EQUIPMENT, PROTECTIVE DEVICES AND OPERATIONAL CONSIDERATIONS ARE REQUIRED FOR REPAIR OPERATIONS.
- D THE MAJORITY OF EXISTING PIPING REQUIRING REMOVAL AND REPLACEMENT OF HANGERS, SUPPORTS AND PIPING INSULATION IS SHOWN. INCLUDE AN ADDITIONAL 25% (OF EACH SIZE AND TYPE) FOR HANGER/SUPPORT REMOVALS, NEW HANGER/ SUPPORT INSTALLATION, PIPING INSULATION REMOVALS, AND NEW PIPING INSULATION, TO ACCOMMODATE INCIDENTAL PIPING THAT MAY NOT BE SHOWN BUT IS ASSOCIATED WITH THE PROJECT SCOPE.
- E REFER TO ARCHITECTURAL PLAN 137-A100 FOR INFORMATION REGARDING CRAWL-SPACE ACCESS LOCATIONS.
- F REFER TO DETAIL 7 ON STRUCTURAL DRAWING 137-S701 FOR REQUIREMENTS OF SECURING HANGERS RODS IN CONCRETE.
- G CONTRACTOR SHALL VIEW CRAWLSPACE AS A PERMIT REQUIRED CONFINED SPACE AND FOLLOW ALL APPROPRIATE REQUIREMENTS FOR PERMIT REQUIRED CONFINED SPACES OUTLINED IN MCM 00-45 DOCUMENT.
- H REFER TO SPECIFICATION SECTION 02 82 11, TRADITIONAL ASBESTOS ABATEMENT, FOR INSTRUCTIONS IF ASBESTOS SHOULD BE ENCOUNTERED IN PERFORMANCE OF

### ○ NOTES:

- 1 EXISTING TO REMAIN.
- 2 REMOVE ALL PIPING HANGERS IN THIS AREA. TEMPORARILY SUPPORT PIPING FROM FLOOR DURING REPLACEMENT AND WHILE CONCRETE REPAIR WORK IS PERFORMED. INSTALL NEW PIPE HANGERS/SUPPORTS PER DETAILS ON THIS SHEET AND SPECIFICATION SECTION 21 05 11. COORDINATE ALL WORK CLOSELY WITH CONCRETE
- 3 PIPING IN THIS AREA WILL NOT BE SHUT DOWN. TAKE PRECAUTIONS NECESSARY TO WORK AROUND PIPES WHILE IN OPERATION.

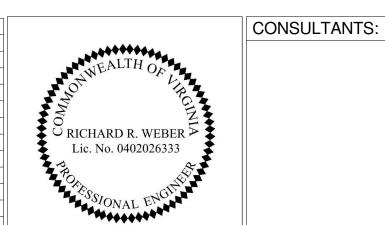
### LEGEND

DIRECTION OF FLOW FIRE SUPPRESSION PIPE (WET) "NOTE" SYMBOL (FOR NOTES ON SAME SHEET)

PIPE BASEMENT DRAWING INDEX - FIRE SUPPRESSION

KEYPLAN Scale: N.T.S.

ARCHITECT/ENGINEERS: Drawing Title PIPE BASEMENT PLAN - REMOVALS AND NEW WORK - FIRE SUPPRESSION

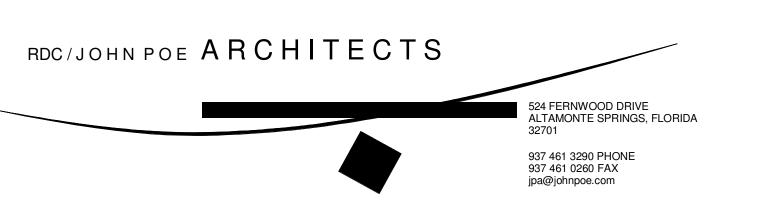


Date

one-eighth inch = one foot

Revisions

Heapy Engineering Nationally Recognized Leader in Sustainability / LEED 1400 W Dorothy Lane, Dayton OH 45409-1310 Ph: 937-224-0861 Fax: 937-224-5777 www.heapy.com

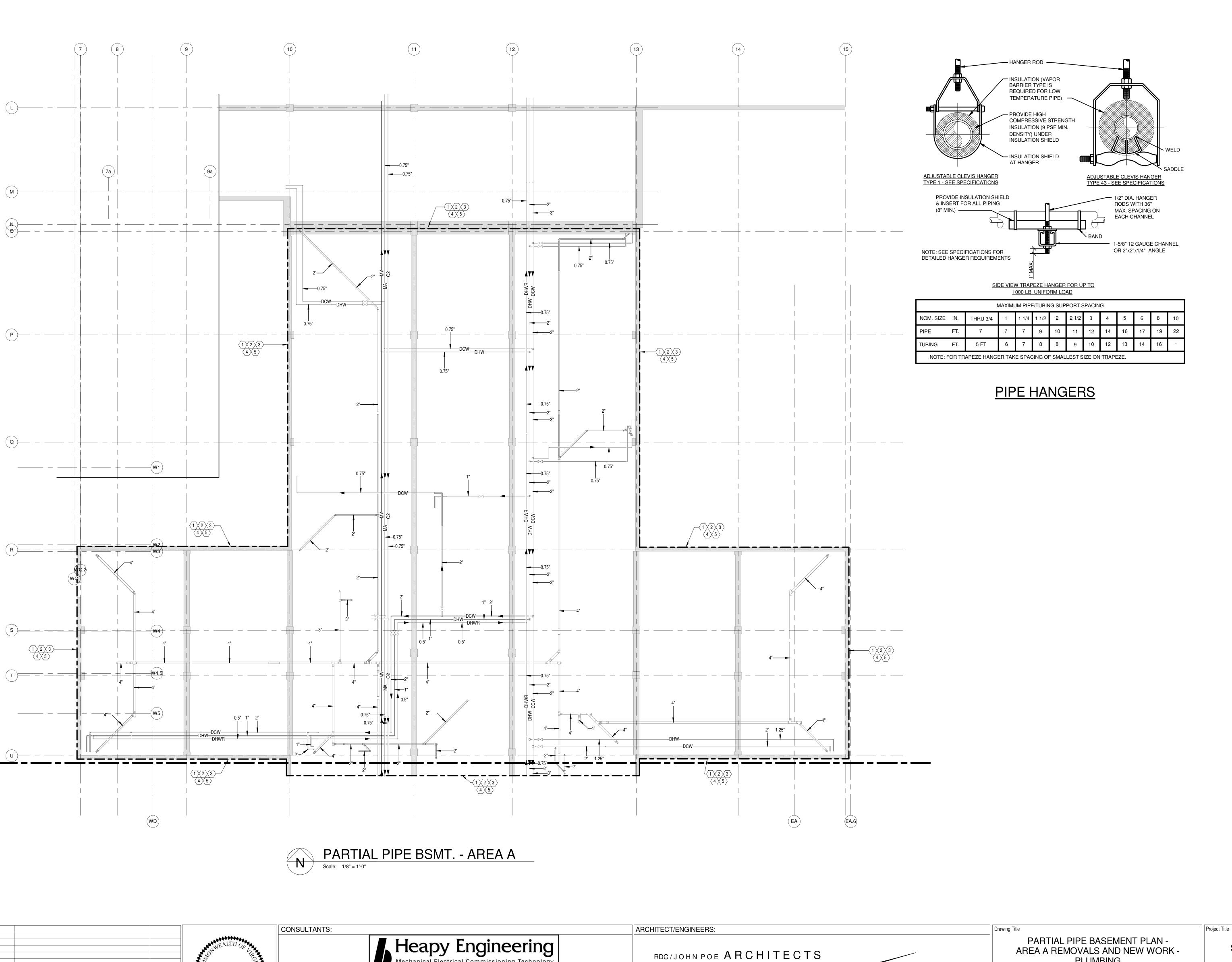


Building Number Approved: Project Director

Project Title SCI Crawlspace Emergent Structural Repairs 590-14-112 RDC/JPA Project No. 11004.01 Drawn DPB Drawing Number RLT

Hampton, Va.

Heapy Project No.: 2011-04008



8 9

Revisions

○ RICHARD R. WEBER >

Lic. No. 0402026333

Date

Nationally Recognized Leader in Sustainability / LEED

1400 W Dorothy Lane, Dayton OH 45409-1310

Ph: 937-224-0861 Fax: 937-224-5777 www.heapy.com

Heapy Project No.: 2011-04008

# **GENERAL NOTES:**

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- B EXISTING CONDITIONS SHOWN HAVE BEEN BASED UPON VISUAL OBSERVATION AND/ OR AVAILABLE DRAWING INFORMATION, AND MAY BE AT VARIANCE WITH ACTUAL WORK IN PLACE. THE CONTRACTOR SHALL TAKE ALL NECESSARY FIELD MEASUREMENTS AND FIELD VERIFY ALL CONDITIONS AFFECTING THE EXECUTION OF THE WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE WORK SHOWN ON THE CONTRACT DOCUMENTS WHICH MAY IMPACT THE PROGRESS OF THE WORK SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER IN WRITING FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
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## NOTES:

1 EXISTING TO REMAIN.

REPAIR CONTRACTOR.

- 2 REMOVE ALL PIPING INSULATION IN THIS AREA. RE-INSULATE PIPING PER SPECIFICATION SECTION 22 07 11.
- 3 REMOVE ALL PIPING HANGERS IN THIS AREA. TEMPORARILY SUPPORT PIPING FROM FLOOR DURING REPLACEMENT AND WHILE CONCRETE REPAIR WORK IS PERFORMED. INSTALL NEW PIPE HANGERS/SUPPORTS PER DETAILS ON THIS SHEET AND SPECIFICATION SECTION 22 05 11. COORDINATE ALL WORK CLOSELY WITH CONCRETE
- 4 AS PART OF BID ITEM 3 (DEDUCT ALTERNATE #2), CONTRACTOR SHALL PERFORM ALL WORK AS NOTED EXCEPT IN LIEU OF REPLACING ALL DOMESTIC WATER PIPING INSULATION WITHIN THE PIPE BASEMENT, REPLACE THE DOMESTIC WATER PIPING INSULATION ONLY WHERE REMOVING EXISTING HANGERS AND INSTALLING NEW HANGERS (APPROXIMATELY 2 FT. AT EACH HANGER). REFER TO SPECIFICATION SECTION 22 07 11 FOR INSULATION INFORMATION.
- 5 PLUMBING PIPING IN THIS AREA WILL NOT BE SHUT DOWN. TAKE PRECAUTIONS NECESSARY TO WORK AROUND PIPES WHILE IN OPERATION.

# LEGEND

SOIL AND OR WASTE PIPE (SP) OR (WP)

DHW DOMESTIC COLD WATER PIPE (DCW)

DHW DOMESTIC HOT WATER PIPE (DHW) DHWR DOMESTIC HOT WATER RETURN PIPE (DHWR)

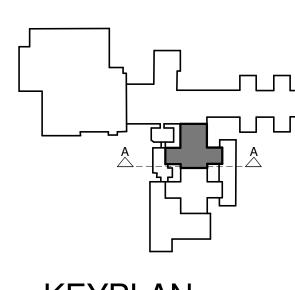
SHUT-OFF VALVE (BALL)

DIRECTION OF FLOW

"NOTE" SYMBOL (FOR NOTES ON SAME SHEET)

CLEANOUT

PIPE BASEMENT DRAWING INDEX - PLUMBING **DESCRIPTION** 137-PP100A PARTIAL PIPE BASEMENT PLAN - AREA A REMOVALS AND NEW WORK - PLUMBING 37-PP100B PARTIAL PIPE BASEMENT PLAN - AREA B REMOVALS AND NEW WORK - PLUMBING



KEYPLAN

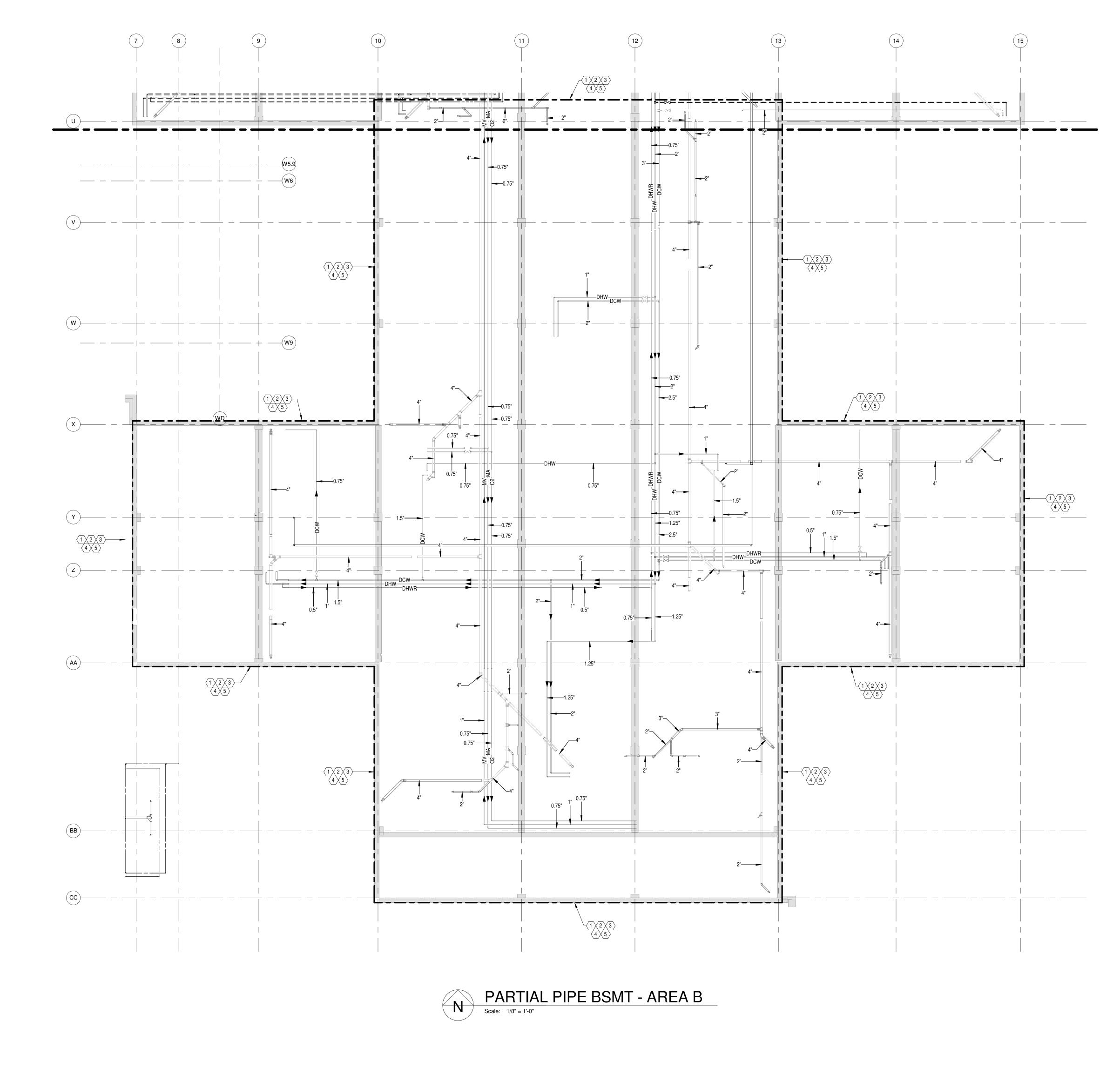
SCI Crawlspace Emergent Structural Repairs 590-14-112 RDC/JPA Project No. 11004.01 Drawn DPB Building Number Drawing Number RLT 137-PP100A Hampton, Va.

PLUMBING

Approved: Project Director

524 FERNWOOD DRIVE ALTAMONTE SPRINGS, FLORIDA

937 461 3290 PHONE 937 461 0260 FAX jpa@johnpoe.com



**GENERAL NOTES:** 

A REFER TO SHEET 137-PP100A FOR GENERAL NOTES, LEGEND AND DRAWNG INDEX.

# ○ NOTES:

1 EXISTING TO REMAIN.

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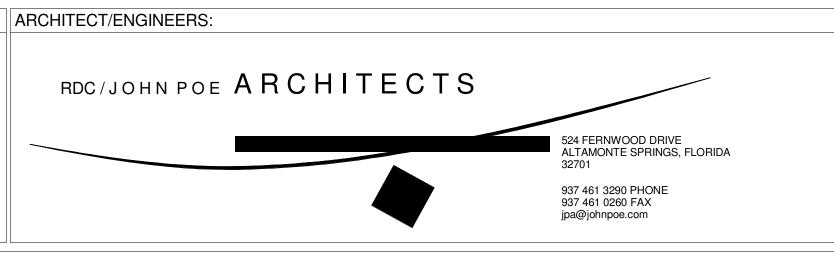
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SECTION 22 07 11 FOR INSULATION INFORMATION.

KEYPLAN Scale: N.T.S.

○ RICHARD R. WEBER ► Lic. No. 0402026333

CONSULTANTS: Heapy Engineering Nationally Recognized Leader in Sustainability / LEED



Drawing Title
PARTIAL PIPE BASEMENT PLAN - AREA B REMOVALS AND NEW WORK - PLUMBING

Approved: Project Director

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	space Eme ural Repairs	•	06/05/2014  Project No. 590-14-112	epartment of
umber	Checked	Drawn	RDC/JPA Project No. 11004.01  Drawing Number	epart
137C	RLT	DPB	137-PP100B	
Hampton, Va	a.		Dwg. of 135	

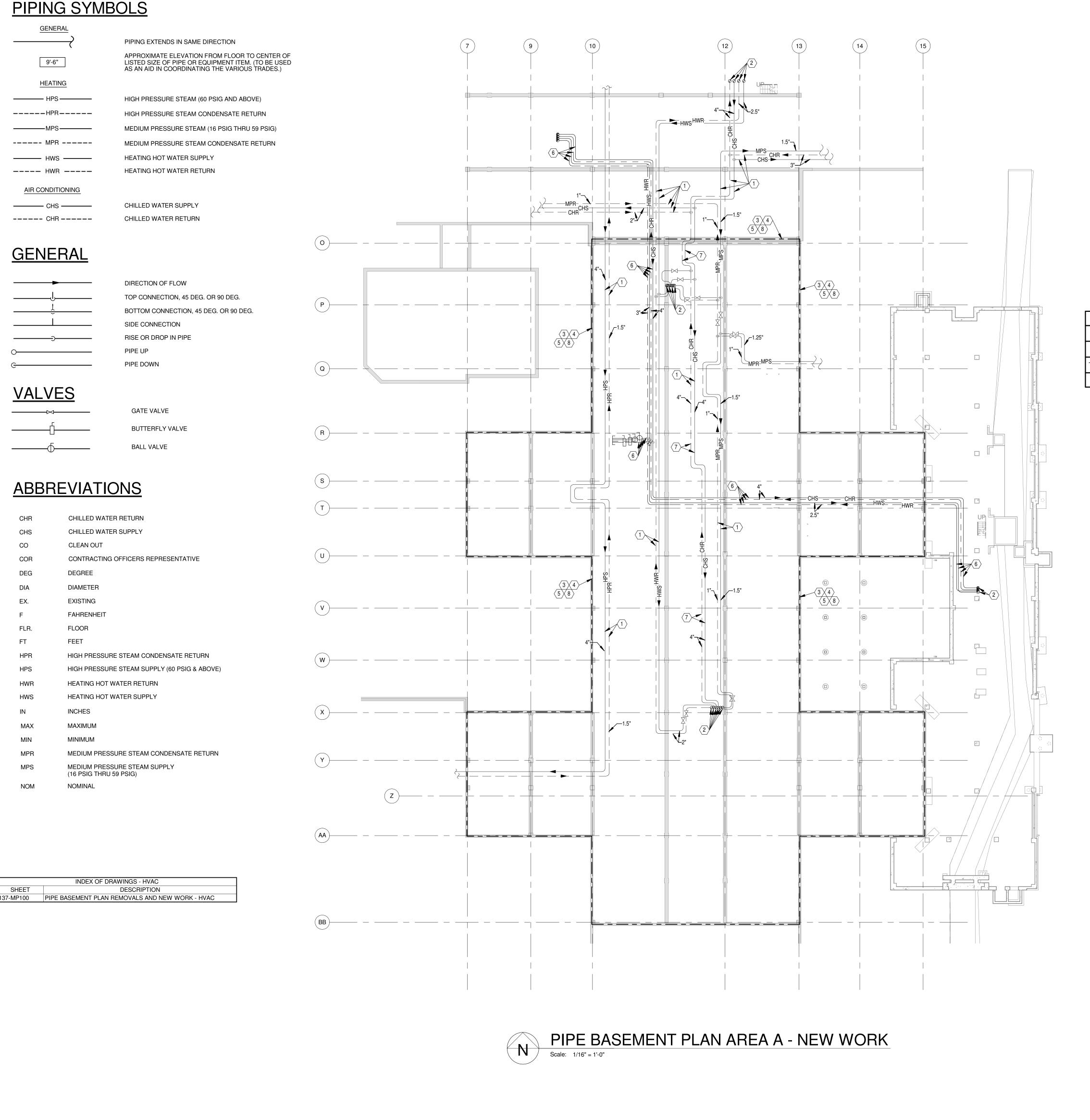
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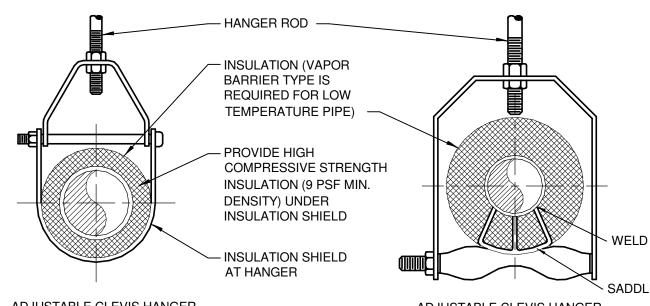
Revisions

Date

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Heapy Project No.: 2011-04008





ADJUSTABLE CLEVIS HANGER
TYPE 1 - SEE SPECIFICATIONS

PROVIDE INSULATION SHIELD
& INSERT FOR ALL PIPING
(8" MIN.)

NOTE: SEE SPECIFICATIONS FOR DETAILED HANGER REQUIREMENTS

ADJUSTABLE CLEVIS HANGER
TYPE 43 - SEE SPECIFICATIONS

1/2" DIA. HANGER
RODS WITH 36"
MAX. SPACING ON
EACH CHANNEL

1-5/8" 12 GAUGE CHANNEL

OR 2"x2"x1/4" ANGLE

SIDE VIEW TRAPEZE HANGER FOR UP TO

1000 LB. UNIFORM LOAD

MAXIMUM PIPE/TURING SUPPORT SPACING

		N	JAXIMU	JM PIPE	E/TUBIN	IG SUP	PORT S	SPACIN	G				
NOM. SIZE	IN.	THRU 3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10
PIPE	FT.	7	7	7	9	10	11	12	14	16	17	19	22
TUBING	FT.	5 FT	6	7	8	8	9	10	12	13	14	16	ı
NOTE: F	OR TR	APEZE HANGE	ER TAK	E SPAC	ING OF	SMAL	LEST S	IZE ON	TRAPE	ZE.			

# PIPE HANGERS

## **GENERAL NOTES**

- 1. THESE NOTES APPLY EQUALLY TO THE FULL SET OF DOCUMENTS.
- 2. INCLUDE ALL WORK NECESSARY TO ACCOMMODATE PHASING. COORDINATE WITH ALL OTHER TRADES.
- 3. INSULATE PIPING WHERE EXISTING INSULATION HAS BEEN DAMAGED AND/OR REMOVED IN THE PERFORMANCE OF WORK IN THIS PROJECT.
- 4. THE CONTRACTORS SHALL REFER TO ALL SPECIFICATION SECTIONS AND THESE DRAWINGS FOR DETAILS OF BUILDING CONSTRUCTION TO ENSURE SPACE AND SATISFACTORY ARRANGEMENT FOR THEIR WORK. THE VARIOUS DRAWINGS COMPRISING THE SET ARE INTERDEPENDENT AND MUST BE USED JOINTLY AT ALL TIMES. EACH CONTRACTOR SHALL REFER TO THE GENERAL REQUIREMENTS OF THE CONTRACT. THE NOTES AND SYMBOLS INDICATED ON THE DRAWINGS ARE FOR THE GUIDANCE OF ALL TRADES INVOLVED IN THE PROJECT AND MUST BE FOLLOWED TO EXECUTE THE WORK AS INTENDED. IF DISCREPANCIES OCCUR, CONTACT THE COR THRU THE CONTRACTING OFFICER FOR CLARIFICATION BEFORE PROCEEDING.
- 5. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. SEE SPECIFICATIONS FOR MORE SPECIFIC DETAILS ON RESPONSIBILITIES.
- 6. ALL WORK MUST BE COORDINATED WITH THE CONTRACTING OFFICER AND COR TO MAINTAIN OPERATION OF THE EXISTING FACILITY.
- 7. EACH CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF OTHERS. HE SHALL KEEP HIMSELF INFORMED OF THE PROGRESS AND DETAIL DEVELOPMENT OF THE WORK OF OTHERS AND SHALL BE RESPONSIBLE FOR COORDINATING AND EXPEDITING HIS WORK WITH OTHERS SO THAT THE PROGRESS OF THE TOTAL WORK SHALL BE KEPT ON SCHEDULE.
- 8. ALL WORK SHALL BE PERFORMED IN COMPLETE COMPLIANCE WITH ALL GOVERNING CODES AND STANDARDS.
- 9. EXISTING CONDITIONS SHOWN HAVE BEEN BASED UPON VISUAL OBSERVATION AND/OR AVAILABLE DRAWING INFORMATION, AND MAY BE AT VARIANCE WITH ACTUAL WORK IN PLACE. THE CONTRACTOR SHALL TAKE ALL NECESSARY FIELD MEASUREMENTS AND FIELD VERIFY ALL CONDITIONS AFFECTING THE EXECUTION OF THE WORK. ANY DISCREPANCIES BETWEEN EXISTING CONDITIONS AND THE WORK SHOWN ON THE CONTRACT DOCUMENTS WHICH MAY IMPACT THE PROGRESS OF THE WORK SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER IN WRITING FOR RESOLUTION BEFORE PROCEEDING WITH THE WORK.
- 10. EACH CONTRACTOR AND/OR TRADE, FITTING OR PLACING HIS WORK INTO OR ON THE WORK OF OTHERS DOES SO WITH THE UNDERSTANDING THAT THE INSTALLATION OF HIS WORK CONSTITUTES HIS ACCEPTANCE OF THE SUITABILITY OF THE WORK IN PLACE. IF THE WORK OF OTHERS IS NOT ACCEPTABLE, HE SHALL NOTIFY THE COR AND SUCH WORK SHALL BE CORRECTED. ANY NEW WORK INSTALLED IN UNSUITABLE EXISTING CONDITIONS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR OR TRADE INSTALLING THE NEW WORK. NO CLAIMS FOR ADDITIONAL COMPENSATION FOR CORRECTING WORK INSTALLED IN UNSUITABLE EXISTING CONDITIONS WILL BE CONSIDERED.
- 11. ABATEMENT, REMOVAL, OR ENCAPSULATION OF EXISTING MATERIALS CONTAINING ASBESTOS IS BEING PERFORMED AS PART OF THIS PROJECT. REFER TO SPECIFICATION SECTION 02 82 11 TRADITIONAL ASBESTOS ABATEMENT FOR ADDITIONAL INFORMATION.
- 12. ANNULAR SPACE OF ALL PIPE, CONDUIT, DUCT & OTHER SIMILAR PENETRATIONS OF FIRE RATED ASSEMBLIES SHALL BE FIRESTOPPED. IN ADDITION, PENETRATIONS THROUGH 0-HOUR RATED WALLS & FLOORS SHALL BE FIRESTOPPED TO RETARD PASSAGE OF FIRE & SMOKE.
- 13. ALL CUTTING AND PATCHING REQUIRED FOR THIS PROJECT SHALL BE INCLUDED IN THE CONTRACT. REFINISH ANY SURFACE DISTURBED UNDER THIS WORK TO MATCH EXISTING.
- 14. FIELD VERIFY EXISTING CONDITIONS, INCLUDING PIPE AND EQUIPMENT SIZES, SERVICES AND LOCATIONS PRIOR TO PERFORMING WORK.
- 15. CONTRACTOR IS RESPONSIBLE TO DETERMINE CHARACTERISTICS OF CRAWL SPACE AND WHAT VENTILATION, EQUIPMENT, PROTECTIVE DEVICES AND
- OPERATIONAL CONSIDERATIONS ARE REQUIRED FOR REPAIR OPERATIONS.

  16. ALL ABANDONED EXTRANEOUS PIPING, SUPPORTS, CONTROLS, ETC. SHALL BE REMOVED.
- 17. WHERE EXISTING HVAC UTILITIES IN SERVICE WILL BE DISRUPTED DURING THE CONSTRUCTION OF THIS PROJECT, THIS WORK SHALL BE PERFORMED ON WEEKENDS OR WEEK NIGHTS, IF REQUIRED BY THE COR. DOWNTIME SHALL BE KEPT TO A MINIMUM, AND SHALL BE COORDINATED AND SCHEDULED WELL IN ADVANCE WITH THE COR.
- 18. THE MAJORITY OF EXISTING PIPING REQUIRING REMOVAL AND REPLACEMENT OF HANGERS, SUPPORTS AND PIPING INSULATION IS SHOWN. INCLUDE AN <u>ADDITIONAL 25% (OF EACH SIZE AND TYPE)</u> FOR HANGER/SUPPORT REMOVALS, NEW HANGER/SUPPORT INSTALLATION, PIPING INSULATION REMOVALS, AND NEW PIPING INSULATION, TO ACCOMMODATE INCIDENTAL PIPING THAT MAY NOT BE SHOWN BUT IS ASSOCIATED WITH THE PROJECT SCOPE.
- 19. REFER TO ARCHITECTURAL PLAN 137-A100 FOR INFORMATION REGARDING CRAWL SPACE ACCESS LOCATIONS.
- 20. REFER TO DETAIL 7 ON STRUCTURAL DRAWING 137-S701 FOR REQUIREMENTS OF SECURING HANGER RODS IN CONCRETE.
- 21. ALL PIPING IS SUPPORTED FROM THE UNDERSIDE OF STRUCTURE IN EXPOSED STRUCTURE AREAS.
- 22. THE PIPE BASEMENT OF B137 SHALL BE CONSIDERED A <u>PERMIT REQUIRED</u> CONFINED SPACE. FOLLOW ALL APPLICABLE REQUIREMENTS FOR <u>PERMIT REQUIRED</u> CONFINED SPACES AS OUTLINED IN MCM 00-45. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

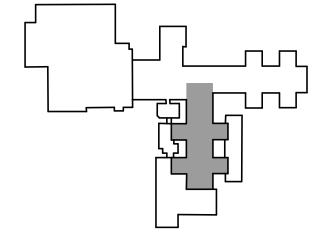
# ○ NOTES

WITH COR.

- EXISTING PIPING TO REMAIN.
- PIPING (SUPPLY AND RETURN) UP TO FIRST FLOOR AND ROOF.
- 3. REMOVE ALL PIPING INSULATION IN THIS AREA. RE-INSULATE PIPING PER SPECIFICATION SECTION 23 07 11.
- 4. REMOVE ALL PIPING HANGERS IN THIS AREA. TEMPORARILY SUPPORT PIPING FROM FLOOR DURING REPLACEMENT AND WHILE CONCRETE REPAIR WORK IS PERFORMED. INSTALL NEW PIPE HANGERS/SUPPORTS PER DETAILS ON THIS SHEET AND SPECIFICATION SECTION 23 05 11. COORDINATE ALL WORK CLOSELY WITH CONCRETE REPAIR CONTRACTOR.
- 5. AS PART OF BID ITEM 2 (DEDUCT ALTERNATE #1), CONTRACTOR SHALL PERFORM ALL WORK AS NOTED EXCEPT IN LIEU OF REPLACING <u>ALL</u> HVAC HYDRONIC, STEAM AND CONDENSATE PIPING INSULATION WITHIN THE PIPE BASEMENT, REPLACE THE HVAC HYDRONIC, STEAM AND CONDENSATE PIPING INSULATION <u>ONLY</u> WHERE REMOVING EXISTING HANGERS AND INSTALLING NEW HANGERS (APPROXIMATELY 2 FT. AT EACH HANGER).
- 6. NEW PIPING TO BE INSTALLED UNDER PROJECT RENOVATE/EXPAND SCI PHASE II, 590-911. NO WORK REQUIRED.

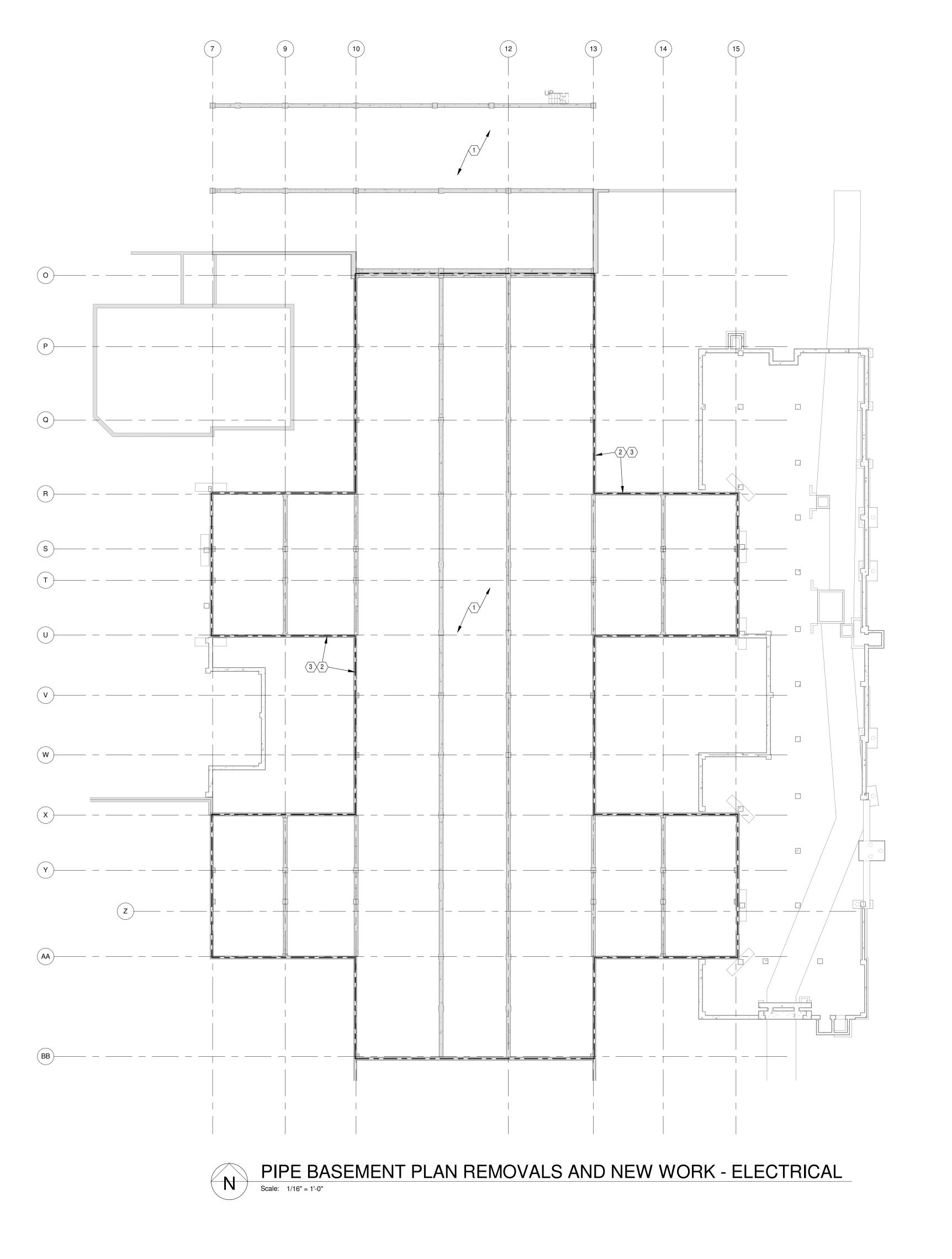
REFER TO SPECIFICATION SECTION 23 07 11 FOR INSULATION INFORMATION.

- 7. CHILLED WATER PIPING INSULATION WORK SHALL OCCUR WHEN THE CHILLED WATER CAN BE SHUT DOWN. COORDINATE ALL/ANY OUTAGES
- 8. STEAM AND CONDENSATE PIPING INSULATION WORK SHALL OCCUR WHEN THE STEAM SERVICE CAN BE SHUT DOWN. COORDINATE ALL/ANY OUTAGES

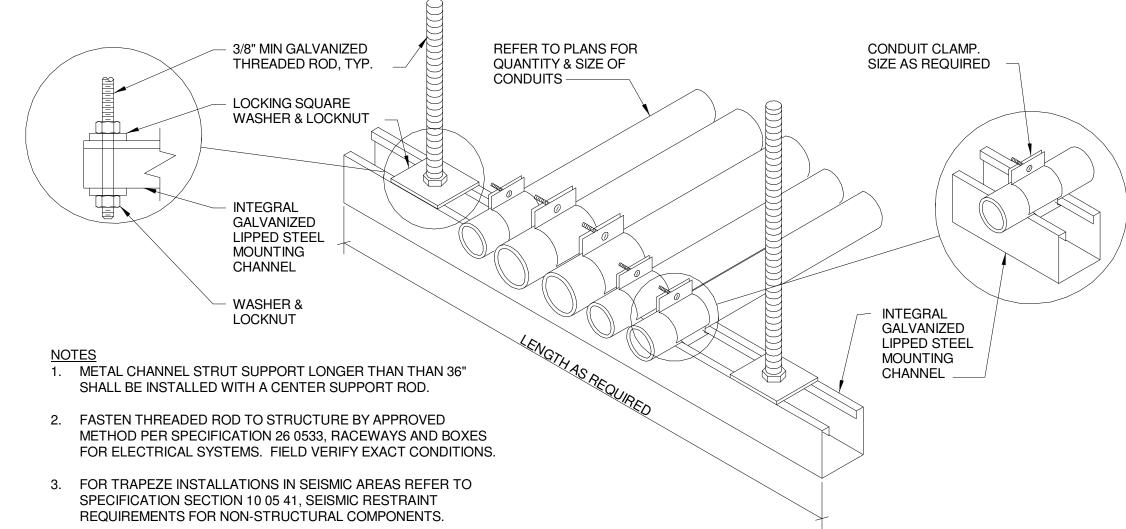


KEYPLAN AREA A AND B

CONSULTANTS: ARCHITECT/ENGINEERS: Drawing Title Project Title Heapy Engineering PIPE BASEMENT PLAN REMOVALS SCI Crawlspace Emergent RDC/JOHN POE ARCHITECTS AND NEW WORK - HVAC Structural Repairs 590-14-112 RDC/JPA Project No. 11004.01 C RICHARD R. WEBER Nationally Recognized Leader in Sustainability / LEED 524 FERNWOOD DRIVE ALTAMONTE SPRINGS, FLORIDA **Building Number** Lic. No. 0402026333 Drawing Number PCW DLE 1400 W Dorothy Lane, Dayton OH 45409-1310 137-MP100 937 461 3290 PHONE 937 461 0260 FAX jpa@johnpoe.com Ph: 937-224-0861 Fax: 937-224-5777 www.heapy.com Approved: Project Director Heapy Project No.: 2011-04008 Hampton, VA. Date Revisions



Revisions



# CONDUIT TRAPEZE MOUNTING DETAIL

CONDUIT SCHEDULE							
NOM. SIZE (IN.)	0.75"	2"	4"				
BID AMOUNT (LF)	2,500'	1,000'	2,500'				
MAXIMUM DISTANCE BETWEEN SUPPORTS	10'	10'	10'				

NOTE: SUPPORT ALL EXISTING CONDUIT IN STRICT ACCORDANCE WITH NEC 2014. MAXIMUM SPACING SHALL BE PER TABLE TO DISTRIBUTE CONDUIT WEIGHT AMONG STRUCTURAL MEMBERS.

# CONDUIT SCHEDULE

## **GENERAL NOTES**

- A. THESE NOTES APPLY EQUALLY TO THE FULL SET OF DOCUMENTS.
  B. INCLUDE ALL WORK NECESSARY TO ACCOMMODATE PHASING. COORDINATE WITH ALL OTHER TRADES
  C. THE CONTRACTORS SHALL REFER TO ALL SPECIFICATION SECTIONS AND THESE DRAWINGS FOR DETAILS OF BUILDING CONSTRUCTION TO ENSURE SPACE AND SATISFACTORY ARRANGEMENT FOR THEIR WORK. THE VARIOUS DRAWINGS COMPRISING THE SET ARE INTERDEPENDENT AND MUST BE USED JOINTLY AT ALL TIMES. EACH CONTRACTOR SHALL REFER TO THE GENERAL REQUIREMENTS OF THE CONTRACT. THE NOTES AND SYMBOLS INDICATED ON THE DRAWINGS ARE FOR THE GUIDANCE OF ALL TRADES INVOLVED IN THE PROJECT AND MUST BE FOLLOWED TO EXECUTE THE WORK AS INTENDED. IF DISCREPANCIES OCCUR, CONTACT THE COR THRU THE CONTRACTING OFFICER
- FOR CLARIFICATION BEFORE PROCEEDING.
  IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, THE CONTRACTOR WILL BE SOLELY AND COMPLETELY RESPONSIBLE FOR THE CONDITIONS ON THE JOB SITE, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK. THIS WILL APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS. SEE SPECIFICATIONS FOR MORE SPECIFIC DETAILS ON RESPONSIBILITIES.
- E. ALL WORK MUST BE COORDINATED WITH THE CONTRACTING OFFICER AND COR TO MAINTAIN OPERATION OF THE EXISTING FACILITY.
  F. EACH CONTRACTOR SHALL COORDINATE HIS WORK WITH THE WORK OF OTHERS. HE SHALL KEEP HIMSELF INFORMED OF THE PROGRESS AND DETAIL DEVELOPMENT OF THE WORK OF OTHERS AND SHALL BE RESPONSIBLE FOR
- COORDINATING AND EXPEDITING HIS WORK WITH OTHERS SO THAT THE PROGRESS OF THE TOTAL WORK SHALL BE KEPT ON SCHEDULE.

  G. ALL WORK SHALL BE PERFORMED IN COMPLETE COMPLIANCE WITH ALL GOVERNING CODES AND STANDARDS.

  H. IF, IN THE PERFORMANCE OF THIS WORK, MATERIALS ARE OBSERVED WHICH ARE SUSPECTED TO CONTAIN ASBESTOS, THE CONTRACTOR SHALL IMMEDIATELY INFORM THE COR. WORK THAT WOULD EXPOSE WORKERS TO THE INHALATION OF ASBESTOS PARTICLES SHALL BE TERMINATED. WORK MAY BE
- MATERIALS HAVE BEEN REMOVED OR ENCAPSULATED AND THE AREA DECLARED SAFE.

  I. ANNULAR SPACE OF ALL PIPE, CONDUIT, DUCT & OTHER SIMILAR PENETRATIONS OF FIRE RATED ASSEMBLIES SHALL BE FIRESTOPPED. IN ADDITION, PENETRATIONS THROUGH 0-HOUR RATED WALLS & FLOORS SHALL BE

RESUMED ONLY AFTER A DETERMINATION HAS BEEN MADE AND UNSAFE

- FIRESTOPPED TO RETARD PASSAGE OF FIRE & SMOKE.

  J. ALL CUTTING AND PATCHING REQUIRED FOR THIS PROJECT SHALL BE INCLUDED IN THE CONTRACT. REFINISH ANY SURFACE DISTURBED UNDER THIS WORK TO MATCH EXISTING.
- K. FIELD VERIFY EXISTING CONDITIONS, INCLUDING CONDUIT SERVICES AND LOCATIONS PRIOR TO PERFORMING WORK. DOCUMENT ALL ON AS-BUILT DRAWINGS. SUBMIT DRAWINGS AT BEGINNING OF PROJECT.
- DRAWINGS. SUBMIT DRAWINGS AT BEGINNING OF PROJECT.

  L. CONTRACTOR IS RESPONSIBLE TO DETERMINE CHARACTERISTICS OF CRAWL SPACE AND WHAT VENTILATION. EQUIPMENT. PROTECTIVE DEVICES AND
- SPACE AND WHAT VENTILATION, EQUIPMENT, PROTECTIVE DEVICES AND OPERATIONAL CONSIDERATIONS ARE REQUIRED FOR REPAIR OPERATIONS.

  M. ALL ABANDONED EXTRANEOUS CONDUITS, SUPPORTS, ETC. SHALL BE
- REMOVED.

  N. REFER TO ARCHITECTURAL PLAN 137-A100 FOR INFORMATION REGARDING
  CRAWLESPACE ACCESS LOCATIONS
- CRAWL SPACE ACCESS LOCATIONS.

  O. REFER TO DETAIL 7 ON STRUCTURAL DRAWING 137-S701 FOR REQUIREMENTS OF SECURING HANGER RODS IN CONCRETE.
- OF SECURING HANGER RODS IN CONCRETE.

  P. ALL CONDUIT IS SUPPORTED FROM THE UNDERSIDE OF STRUCTURE IN EXPOSED STRUCTURE AREAS.

#### ○ NOTES

- EXISTING CONDUITS TO REMAIN.
   REMOVE ALL CONDUIT HANGERS IN THIS AREA. TEMPORARILY SUPPORT CONDUITS FROM FLOOR WHILE CONCRETE REPAIR WORK IS PERFORMED. INSTALL NEW CONDUIT HANGERS/SUPPORTS PER DETAILS ON THIS SHEET, STRUCTURAL DETAILS ON SHEET 137-S701 AND SPECIFICATION SECTION 26 05 11. COORDINATE ALL WORK CLOSELY WITH CONCRETE REPAIR CONTRACTOR. REFER TO CONDUIT SCHEDULE, THIS SHEET FOR APPROXIMATE QUANTITY OF EXISTING CONDUITS. BASE COST FOR REMOVALS OF HANGERS, TEMPORARY SUPPORTING OF CONDUITS AND NEW HANGERS ON THESE OLIANTITIES OF CONDUITS. ASSUME 1/2 OF CONDUITS ARE ON A COMMON
- BUILT" DRAWING TO COR PRIOR TO ORDERING ANY HANGERS.

  3. ALL ELECTRICAL / LOW VOLTAGE TECHNOLOGY FEEDERS / CONDUIT SYSTEMS IN THIS AREA SHALL NOT BE SHUT DOWN. TAKE PRECAUTIONS NECESSARY TO WORK AROUND CONDUIT WHILE IN OPERATION.

TRAPEZE AND 1/2 ARE SUPPORTED INDEPENDENTLY. SURVEY EXACT

KEYPLAN AREA A AND B

